

AMENDMENTS TO THE CLAIMS

A complete listing of all claims and their current status is presented below. By this Amendment, Claims 1, 17–20, and 25 are amended and Claims 10, 12–16, and 26–28 are canceled. In the changes made to the following claims, ~~[[deletions are double bracketed]]~~ or ~~shown with strike-through~~, and additions are underlined.

Listing of Claims:

1. **(Currently Amended)** A medical device for insertion into a bodily vessel to treat an aneurysm having an aneurysm neck, the device comprising:

a mechanically expandable device expandable from a first position to a second position, said mechanically expandable device, when inserted into the bodily vessel, is expanded ~~expandable~~ radially outward to the second position such that the exterior surface of said mechanically expandable device engages with the inner surface of the vessel so as to maintain a fluid pathway through said vessel;

a membrane attached to the exterior surface of said mechanically expandable device, the membrane comprising a therapeutically effective amount of a chemical compound comprising a biosynthesis accelerator to stimulate cell growth, the membrane being configured such that when the device is inserted adjacent an aneurysm, the membrane faces the aneurysm and releases the chemical compound toward the aneurysm;
and

a polymer mixed with the chemical compound to manage the release rate of the chemical compound;

wherein the mechanically expandable device provides a support for the release of the chemical compound within the aneurysm to stimulate cell growth within the aneurysm and close the aneurysm neck.

2. **(Previously Presented)** The device according to claim 1, wherein the accelerator is a three-1-phenyl-2-decanoylamino-3-morpholino-1-propanol compound.

3. **(Previously Presented)** The device according to claim 2, wherein the accelerator is L-threo-1-phenyl-2-decanoylamino-3-morpholino-1-propano (L-PDMP) and therapeutically acceptable salts thereof.

4. **(Previously Presented)** The device according to claim 3, wherein the L-PDMP compound stimulates the biosynthesis of glycosphingolipids (GSL)

5. **(Previously Presented)** The device according to claim 4, wherein the L-PDMP compound stimulates the biosynthesis of Lactosylceramide (LacCer) and glucosylceramide (GlcCer).

6. **(Previously Presented)** The device according to claim 1, wherein the polymer is biocompatible, biodegradable, hydrophilic, and has a high degree of swelling.

7. **(Previously Presented)** The device according to claim 6, wherein the polymer is in a solid or highly viscous form, or is highly elastic.

8. **(Previously Presented)** The device according to 1, wherein the polymer comprises a hydrophilic shell and a hydrophobic core or solely consists of hydrophilic composition.

9. **(Previously Presented)** The device according to claim 1, wherein the polymer is selected from the group consisting of: synthetic biodegradable polymers such as Poly (glycolic acid) (PGA), Poly (lactic acid) (PLA), Poly (lactic-co-glycolic acid) (PLGA), poly (ε-caprolactone), Polyanhydride, poly (orthoesters), polyphosphazane; biodegradable polymers from natural sources such as modified polysaccharides (cellulose, chitin, dextran) and Modified proteins (fibrin, casein); and hydrogels or superabsorbants such as Poly (ethylene oxide) PEO, Poly (ethylene glycol) PEG, Methylacrylate (MAA), Maleic anhydride (MAH), Polyacrylamide, Poly (hydroxyethyl methacrylate), Poly (N-vinyl pyrrolidone), Poly (vinyl alcohol).

10. **(Canceled)**

11. **(Previously Presented)** The device according to claim 1, wherein the mechanically expandable device comprises a generally tubular structure having an exterior surface defined by a plurality of interconnected struts having interstitial spaces therebetween.

12. **(Canceled)**

13. **(Canceled)**

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) The device according to claim[[16]]1, wherein the membrane ~~is a single layer or~~ comprises multiple layers.

18. (Currently Amended) The device according to claim[[16]]1, wherein the membrane is biodegradable.

19. (Currently Amended) The device according to claim[[16]]1, wherein the polymer is solid or porous.

20. (Currently Amended) The device according to claim[[16]]1, wherein the polymer is amorphous or semi-crystalline.

21. (Previously Presented) The device according to claim 1, further comprising radiopaque markers incorporated in the polymer to improve the visibility of the polymer and chemical compound during deployment.

22. (Previously Presented) The device according to claim 21, further comprising radiopacifiers such as barium sulphate, zirconium dioxide or iodine.

23. (Previously Presented) The device according to claim 1, wherein the mechanically expandable device is biodegradable.

24. (Previously Presented) The device according to claim 23, wherein the mechanically expandable device and polymer biodegrade at different rates.

25. (Currently Amended) The method for treating an aneurysm having an aneurysm neck, the method comprising:

positioning a mechanically expandable device into a bodily vessel proximate to the aneurysm neck, the mechanically expandable device comprising a membrane on an exterior surface of the device;

releasing, from the membrane, a therapeutically effective amount of a chemical compound comprising a biosynthesis accelerator to stimulate cell growth within the aneurysm, wherein the chemical compound is released from the membrane toward the aneurysm;

wherein the mechanically expandable device provides a support for the release of the chemical compound within the aneurysm to stimulate cell growth within the aneurysm and close the aneurysm neck.

26. (Canceled)
27. (Canceled)
28. (Canceled)